

## SP-5

The creation of the latent heat material RUBITHERM® SP has led to a new and innovative class of low flammability PCM.

RUBITHERM® SP consists of a unique composition of inorganic components. RUBITHERM® SP is preferably used as macroencapsulated material.

With melting points below 0°C these materials are ideal for temperature controlled transport of frozen goods.

We look forward to discussing your particular questions, needs and interests with you.

### Properties:

- stable performance throughout the phase change cycles
- high thermal storage capacity per volume
- limited supercooling (2-3K dependig on volume and cooling rate),
- low flammability, non toxic
- different melting temperatures between -50°C und 70°C are available
- encapsulation necessary, minimum volume: 50ml



### The most important data:

**Melting area**

**Congealing area**

**Heat storage capacity ± 7,5%**

Combination of sensible and latent heat in a temperatur range of -11 °C to4 °C.

**Specific heat capacity**

**Density solid**

at -10°C

**Density liquid**

at 20 °C

**Heat conductivity**

**Max. operation temperature**

**Corrosion**

**Notes:**

Typical Values:

**-6 bis -4** [°C]

main peak:-5

**-5 bis -7** [°C]

main peak:-6

**320** [kJ/kg]

**89** [Wh/kg]\*

**2** [kJ/kg·K]\*

**~1,2** [kg/l]

**1,1** [kg/l]

**0,2** [W/(m·K)]

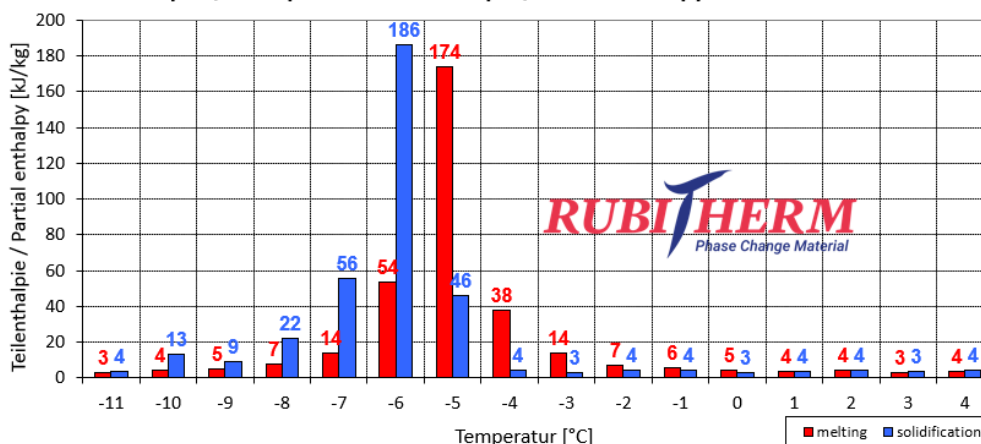
**30** [°C]

corrosive effect on metals

-10°C recommended for freezing

Many SP-product are hygroscopic and may absorb moisture if stored improperly. This can result in a change of the physical properties given. Storing in closed containers mandatory.

Beispiel / example: SP-5 Teilenthalpie / Partial enthalpy distribution\*



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The product information given is a non-binding planning aid, subject to technical changes without notice. Version: 15.03.2024

\*Measured with 3-layer-calorimeter.